

Creating A Living Frequency Distribution:
A Way to Introduce Key Statistical Terms and Concepts
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Term	Define the term in your own words	Give an example:
<u>Discrete Variable</u>		
Dichotomy		
Trichotomy		
<u>Continuous Variable</u>		
Continuum		
<u>Measures of Central Tendency</u>		
Mode		
Median		
Mean		
<u>Measures of Variability</u>		
Range		
Standard Deviation		
<u>Distribution</u>		
Histogram		
Normal Curve		
Skew		
Outlier		

CRITICAL THINKING SKILLS ACTIVITY

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Interpreting Statistics

Directions: Follow the steps below to study the relationship between two variables.

1. Select two items that you believe are correlated. For example, you may believe that the height of a basketball player is positively correlated to the average number of points the player scores per game. When selecting the two items to test for correlation, choose two items that are measurable, such as height and average points per game.
2. If the population is large, select a sample that is representative of an entire population.
3. Gather the data for the sample. Depending upon the type of data you need to gather, you may need to develop a survey or ask your sample participants to keep a log.
4. Identify the independent and dependent variables.
5. Chart the data on the graph below, placing the dependent variable on the x-axis and the independent variable on the y-axis.
6. Create a frequency distribution for the data.
7. Identify the following measures of central tendency for the independent variable: mean, median, and mode.
8. Using the statistics, answer the following questions:
 - A. Is there a positive or negative correlation between the dependent and independent variables? Explain.
 - B. What does the frequency distribution tell you about the data?
 - C. What do the measures of central tendency tell you about the independent variable?
 - D. Do your results indicate a cause-and-effect relationship between the dependent and independent variables? Why or why not?

